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Morganjonesia gen. nov. for two atypical *Corynespora* and *Teratosperma* species

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Abstract—*Morganjonesia* is proposed as a new genus for two species, *Corynespora calophylli* and *Teratosperma litchii*, which have monotretic conidial ontogeny on the terminal conidiogenous cells and solitary, euseptate, verruculose, brown conidia with a single, subulate or acute, hyaline conidial appendage at the apex (sometimes with another downwardly-direct conidial appendage). Illustrations of both species are provided.

Key words—asexual *Ascomycota*, hyphomycetes, systematics

Introduction

Corynespora Güssow, typified by *C. mazei* Güssow [= *C. cassiicola* (Berk. & M.A. Curtis) C.T. Wei], is distinguished by macronematous, mononematous, and generally unbranched, erect conidiophores and monotretic, terminal, integrated, determinate or with several doliiform, enteroblastic percurrent extension conidiogenous cells. The conidiogenous loci are apical, slightly

depressed, somewhat melanized, and thickened around the pore to produce solitary or blastocatenate, multidistoseptate, obclavate, cylindrical, obovate, oval, smooth-walled or verruculose, pale pigmented conidia usually with a slightly melanized basal scar (Morgan-Jones 1988, Seifert & al. 2011). *Corynespora calophylli* clearly deviates from the generic concept of *Corynespora*, because it is characterized by monotretic conidial ontogeny and solitary, 2-euseptate, obclavate to obpyriform, brown conidia with an apical, acute, hyaline conidial appendage, slightly papillate at the truncate base (Holubová-Jechová & Castañeda-Ruiz 1986).

Teratosperma Syd. & P. Syd., typified by *T. singulare* Syd & P. Syd., is characterized by macronematous, mononematous, generally unbranched, erect conidiophores and monoblastic, terminal, integrated, indeterminate conidiogenous cells with several annellidic enteroblastic percurrent extensions. The conidia are staurospore, tetraradiate, rostrate, brown to olivaceous brown, septate at the main axis, with 1–3-basal arms, and pale pigmented (Ellis 1971, Seifert & al. 2011). *Teratosperma litchii* clearly deviates from the generic concept of *Teratosperma*, because it is distinguished by a monotretic conidial ontogeny and solitary, 3(–4)-euseptate, obclavate, brown conidia with 1-2 apical, subulate, hyaline appendage that are slightly papillate at the truncate base (Matsushima 1980).

Here we propose a new genus, *Morganjonesia*, to accommodate these two atypical species.

Taxonomy

Morganjonesia R.F. Castañeda, K. Zhang & D.W. Li, **gen. nov.**

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Differs from *Corynespora* species by its euseptate conidia with an acute or subulate, hyaline apical or downwardly direct conidial appendage; and differs from *Teratosperma* species by its monotretic conidial ontogeny.

Type species: *Corynespora calophylli* Hol.-Jech. & R.F. Castañeda [≡ *Morganjonesia calophylli* (Hol.-Jech. & R.F. Castañeda) R.F. Castañeda & al.]

Etymology: Latin, *Morganjonesia*, in honor of Dr. Gareth Morgan-Jones in recognition of his contributions to the study of hyphomycetes.

Conidiophores macronematous, mononematous, unbranched, erect, straight, cylindrical, septate, smooth, brown to dark brown. Conidiogenous cells monotretic, integrated, terminal, cylindrical, determinate or sometimes with one or several oblong enteroblastic percurrent extensions. Conidial secession schizolytic. Conidia solitary, acrogenous, obclavate to obpyriform, euseptate,

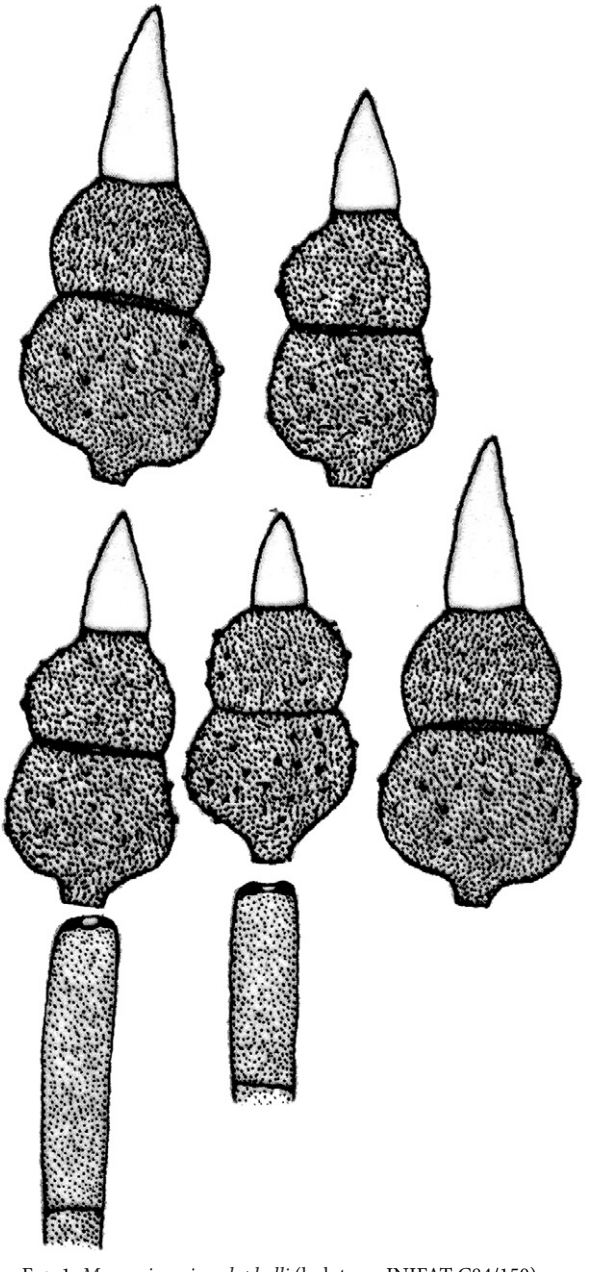

Fig. 1. *Morganjonesia calophylli* (holotype, INIFAT C84/150).
A. Conidia with single apical conidial appendages; B. Conidiogenous cells with tretic loci.

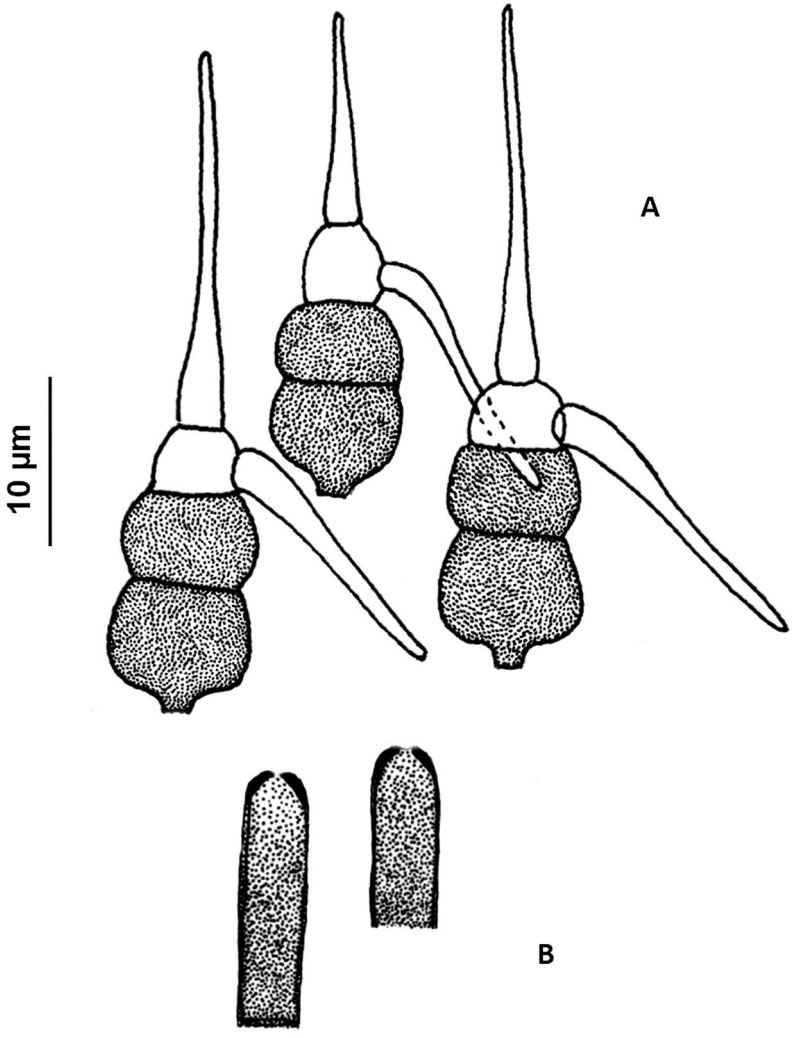

Fig. 2. *Morganjonesia litchii* (holotype, MFC 9048).
A. Conidia with two conidial appendages; B. Conidiogenous cells with tretic loci.

constricted at the septa, slightly papillate at the truncate base, brown or dark brown, smooth-walled or verruculose, with 1–2 acute or subulate, hyaline, smooth conidial appendages at the apex.

Morganjonesia calophylli (Hol.-Jech. & R.F. Castañeda.) R.F. Castañeda, K. Zhang & D.W. Li, **comb. nov.** Fig. 1

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≡ *Corynespora calophylli* Hol.-Jech. & R.F. Castañeda, Česká Mykol. 40(2): 83 (1986).

Morganjonesia litchii (Matsush.) K. Zhang & R.F. Castañeda, **comb. nov.** Fig. 2

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≡ *Teratosperma litchii* Matsush., Matsush. Mycol. Mem. 1: 73 (1980).

Note: *Solicorynespora* R.F. Castañeda & W.B. Kendr., typified by *S. zapatensis* R.F. Castañeda & W.B. Kendr., is similar to *Morganjonesia* in the monotretic conidial ontogeny and the solitary, euseptate conidia (Hernández-Restrepo & al. 2014, Ma & al. 2016), but its protologue (Castañeda-Ruiz & Kendrick 1990) did not describe a hyaline, acute or subulate conidial appendage.

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